

Design Notes: 1991 Chevrolet Caprice

By Mike Rosa on November 18, 2014 at 11:05 am

“When Chevrolet saw it, they loved it.”

Love for the full-size car in America waned during the 1980s. Once-iconic models, like Caprice, were seemingly denied a seat at the table of modernity and became fodder for the elderly and fleets. Yet, despite riding on a platform created before Jimmy Carter took office, the Caprice was retired with style and grace.



When I approached Dick Ruzzin, Chevrolet's then Chief Designer, about doing an interview on the 1991 Caprice, it came with a disclosure. I'd confessed that at 18 years old I had pinned a large foldout Caprice poster over my bed. After the awkward silence had run its course, we scheduled the interview.



There's a lot of material here, so I'll get straight to it and not ramble. This write-up was produced with tremendous input from Ruzzin, including: a written interview, descriptions of the photos, and a follow-up phone interview. That's roughly the order I've presented it in. The following introduction sets the stage.

RUZZIN: All in all, the Caprice was a very successful car and used for many personal and commercial applications. Once I told a group of police that I was responsible for the design and they could not stop the adulation. Basically, they really enjoyed working with a car that was really neat looking, the best looking police car ever, which was their opinion. It looked fast and aggressive in police trim.

I still see some Caprices and in spite of all the cultural changes in design, over twenty five years later, they are still intriguing and stand up very well. The flush side glass and futuristic headlights for the time helped push its character into the future.

The design effort was a fun time; we had a lot of great people working in the studio and did a lot of work. The Caprice followed the design of the Cavalier, Celebrity and Eurosport, and Lumina Sedan and APV, as well as a small car program to replace the Chevette that was cancelled after it was released. We also had design responsibility for all three Japanese small cars sold by Chevrolet from Isuzu, Suzuki and Toyota, as well as the Chevette. That meant a lot of responsibility and effort on everyone's part. The quality of the people shows through in the quality and reach that our designs had as we see them now, so many years later.

We also created a vision for GM that was adopted by the corporation. It was called "Back To Basics" and eliminated millions of part numbers, at \$5000 apiece. A film was made of our presentation and shown throughout the corporation.

All of that was going on as distractions to our main effort at the time, creating a new Caprice design.

A great and enjoyable group of professionals to work with, the people in Chevrolet #2 Studio during those times were responsible for many creative achievements both individually and as a team. It was a great place to work, attested to by the many designers, engineers and sculptors in our building who requested transfer into our group. Unfortunately we could not take them all.

Sharp eyes may have picked up on the nugget about a Chevette replacement program which was cancelled. There is some non-Caprice questioning and discussion in an "Off Topic" section, at the end. Unfortunately, in all the to-do's, however, I forgot to follow up on this particular curiosity, so it'll have to wait.

Before jumping into the Q&A, Ruzzin summarized for us some of the challenges and expectations facing designers and design management.

RUZZIN: The Caprice design program had many design challenges, the same as any other project. The resultant design solution is dependent on the quality of the people in the studio and how much they are trusted by management.

Management, like the studio, has the responsibility to deliver the right design choice in a timely way. This is critically important as design is at the top of an enormous work pyramid, a very small effort in total that affects the larger work effort in an enormous way. The development of an automobile and its variations is a monumental task with a cost into the billions.

If we were one day late in delivering our design then the people at the bottom of the pyramid might be six months late. Six months of lost sales and the interruption of the product family plan is intolerable, resulting in chaos.

The designers, engineers and sculptors in Chevrolet #2 Studio were a small group, in total about fifteen people. They did have Design support for body and release engineering as well as everything that they needed to do the job.

The challenges for doing a production car are always the same:

1. Develop a design that has reach and matches the customer profile and the product vision.
2. Meet all cost and manufacturing requirements of engineering.
3. Satisfy the design expectations of Design, Divisional and Corporate management.

With that knowledge in mind, review the following account that describes the creative efforts of a small group of people at General Motors Design Staff in the late fall and early winter of 1988, over 25 years ago.

Okay, let's find out what inquiring minds want to know about the 1991 Caprice.



(The photos do not necessarily relate to a discussion, unless noted.)

This opening set of questions and answers come from our written correspondence. Many of Ruzzin's responses are peppered with intriguing one-liners that result in a reflexive re-read, followed by a moment of retrospect. Enjoy.

Autos of Interest: Did you have an inspiration for the Caprice's design, and what was the project's motivation?

Ruzzin: Our group was composed of people who were always inspired. We were on a roll having done several leading edge products. We had a lot of fun because we were doing things that inspired our management. When you are working in that kind of situation you cannot produce fast enough.

I do not want to make it sound easy, this is very hard work to do. It is mentally exhausting most of the time. The number of decisions that have to be made in rapid succession, when designing a car, is mind boggling. But if everyone gets on the right track you hit a home run every time. You have your Design management to please, they have to please the Divisions and the Corporation, and all have to please the customer. You are the one who has to decide when whatever you are doing is good enough for yourself. You have to please yourself first. Your standards have to be higher than those of all the rest.

Ben Salvador was a new designer and he had been assigned to Chevrolet 2 Studio, my studio. He was doing some great sketches and we chose one for him to make a full-size rendering. That turned out very well and it was very well received by everyone. From there he was asked to make the tape drawing and a blue print was run, it was attached to a real car so that we could get a better idea about the volumes. This is a very abstract exercise that we learned a lot from. From there we went forward into the full-size clay. Ben had never worked on a full-size car, he was new so I showed him how to start; the front door section first, with the side glass, and then the side profile. After that, the plan view to encompass the wheels, front and rear.

We decided to challenge the Chevrolet engineers. Since the car was done over an existing platform our Studio Engineer, Dick Olsze, suggested a goal for them: reduce the size of all the structural criteria by 10 percent—not the strength but the size—giving us an advantage over the old car. In some areas they were able to achieve that. The biggest challenge was the small block V8 distributor that sat right under the base of the windshield. It had to be redesigned with a two-piece distributor shaft.

When the model was blocked in and in color we took it outside for the first time to participate in a large show. It included a number of cars from other studios so that our management could get a good idea of what was being done and to also see strengths and weaknesses of each program. The Caprice looked like a moon rocket compared to the others.

It was the first time in many years that a car was being done that was not being downsized.

Everyone loved it; it was the newest design in the show. The further we went the more the design

was cemented into place because we added a lot of detail with sophisticated surfaces that made it look like we had worked on it a lot longer. When Chevrolet saw it they loved it.

The engineer in charge of the project was so enthusiastic that Chevrolet built a running car to demonstrate the concept to the GM Board of Directors. The car was all released for production, although we were still making small changes when he drove it over one Saturday morning. We all took it for a ride and it looked incredible; it was our favorite color, dark red metallic like our fiberglass model, with a light tan interior. It was a real hit.

About a year later, I was in Cadillac Studio and we then did the Cadillac version, called the Fleetwood. I just saw a maroon one today in excellent condition. We also did the Presidential Limousine. Two years later I was in Chicago on a beautiful sunny day walking out of Bloomingdales and there parked in front of the store was the regular limousine that we also designed. Those cars were all done on the side while we were really pushing hard on the Seville and Eldorado.

Last spring I was in Detroit and there parked at a gas station were two black Fleetwoods in absolutely pristine condition. They looked great. The design for those cars, the Caprice and the Fleetwoods were done a long time ago, about thirty years.

They did look terrific. The thing about the Caprice was that, because it was over a very old platform, the design expectations were low. The studio that had responsibility for the Caprice was Chevrolet #1. It was a shock to me when we were given the assignment but we were really doing a lot of great work at the time and were very well respected by Chevrolet Engineering for how we did things, how we helped them do their job. We had sold the Celebrity Eurosport program to Chevrolet and that was something that they really admired, that is, how we accomplished it.

The Caprice profile was like no car ever done at design to that point because it broke fifty years of tradition. The car was taller than it had to be. We did that to have a smooth flowing line from the bottom of the windshield, over the passengers and to the bottom of the back-lite. Our VP, Irv Rybicki, asked me about that; our internal engineers had found out and told him. I explained why we did it and he accepted it without a problem.



Autos of Interest: At any point, was a new platform considered?

Ruzzin: No. We did the car over the 14 year old Caprice platform, the B platform. Chevrolet could not afford a new platform and when the management saw the clay model for the first time they almost fainted in unison. They never expected such a dramatic car to emerge from the old engineering criteria.

Autos of Interest: Were you given directives, or wide latitude to take Caprice where you wanted to?

Ruzzin: We were assigned the project and started to work on it, like any other. The designers made sketches and Ben hit the mark very quickly with this design. A successful theme would have to be a simple, clear, long lasting shape that was elegant and very good looking. Our Design management watched us and participated in the design choices but it was the only solution that we in the studio wanted to do full-size, Ben's design.

I have to say here that our boss Dave Holls, the Executive Design Director who was responsible for all of the production design studios, was the interface with Design and Corporate management and he did a marvelous job. He protected us from interference and was always encouraging. We had all the freedom that we needed and more.



Autos of Interest: What was the target clientele for the new Caprice?

Ruzzin: Caprice customers. They had to see it as their car, it had to have some touches that identified it as the new Caprice. We could not make it smaller due to the carry-over platform but we did everything possible to make it “look” smaller. Interior space was huge.



Autos of Interest: Did other GM divisions (or law enforcement) have input relative to their needs?

Ruzzin: The car originally was going to be a Chevrolet only at 300,000 cars a year. When Oldsmobile, Buick and Cadillac saw it they lobbied to get it also which resulted in a lot more production, some of it hard to sell.

There was no law enforcement involvement but I do know that when the car went out of production, Chevrolet had 90,000 police car orders in hand for the future; they wanted to continue building them in Mexico and the UAW stopped it. They did make great looking police cars, aggressive and dynamic.



Autos of Interest: Were there any noteworthy hurdles?

Ruzzin: Not while we were doing the car, everything was very well received. The big design challenge was the narrow rear tread. The chosen design tended to conceal it as the rear wheel was skirted. We tried to get the station wagon rear suspension with a wider tread but they could not afford it and the trunk space was already larger than necessary.

Autos of Interest: Did the fluidic design present any challenges for those downstream?

Ruzzin: We managed all the cost reduction as we went along and maintained the integrity of the design theme. This was because the design proposal was so strong that the design changes did not hurt it. In fact the strength was improving more rapidly than diminishing as we productionized it.

Autos of Interest: Was there anything either planned or hoped for that didn't make production?

Ruzzin: I would say the wagon rear suspension would have been a great help on the sedan. Also my Chief Sculptor, Ray Hildebrand, had come up with a non-traditional method of highlighting the body side that was changed after I left to go to Cadillac Studio. The car looked great and tended to look a little smaller, originally, due to the surface development strategy.



Autos of Interest: Was the wagon a definite model from the start and why did it debut later?

Ruzzin: It was a model to be executed from the beginning but the geometry of the sedan design had to be developed, first, before you could do the wagon. The plan view of the doors had to be capable of extension to the rear to make a wagon. It also had to enclose the carryover rear tailgate hinges. Also, for Chevrolet, as the sedan moved along they could then shift manpower to the wagon.

Autos of Interest: Was a coupe considered, or toyed with? Even in concept?

Ruzzin: No coupe was ever considered. Coupes were on a sales down-slide at that time.



Autos of Interest: In regards to the 1991 Caprice having won Motor Trend's Car of The Year award, what was your reaction?

Ruzzin: I do not recall having one. You have to understand that by the time they get to the award it is years after you did the design and you are then all wound up doing something else. All-in-all I

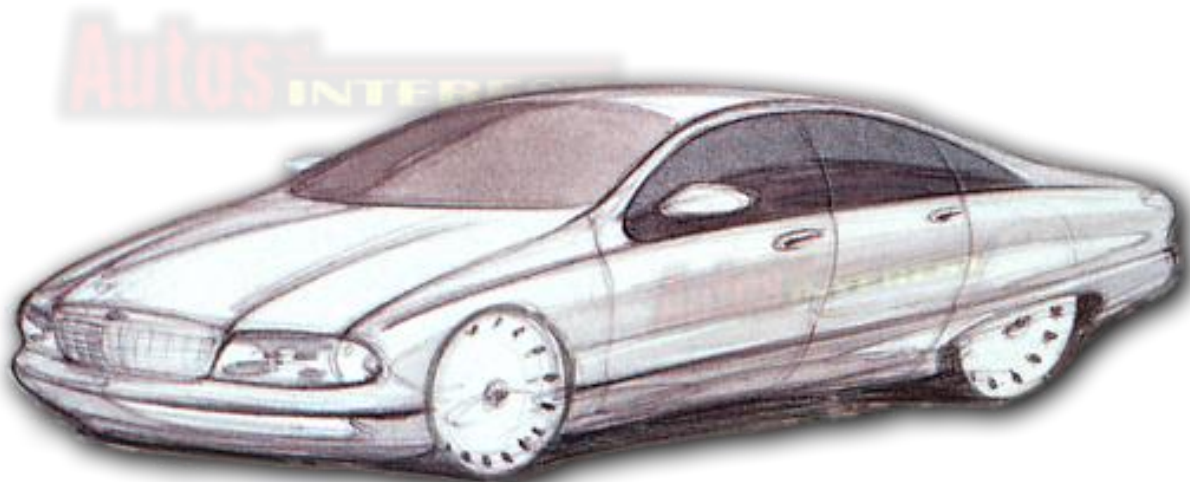
worked on four Car of The Year cars: the 1966 Toronado, this Caprice, the X-Car and the 1992 Seville which was the most awarded car in history at the time.

In addition to the previous questions, I sent a set of pre-production photographs to get Ruzzin's input. Rather than regurgitate the information to you in my words, I've presented his unabridged comments with the pictures.



▲ **Ruzzin:** This is a sketch that Ben Salvador made. As he had some time to do it, I had asked him to start defining the different areas of the car, like headlights, door handles, grill etc. while the clay model was being blocked in by our sculptors. This apparently is his first expression of what the grill and front end would look like.

As the front evolved with cost and manufacturing input, we were able to integrate all the lamps and make the whole front look more dynamic and more powerful.



▲ **Ruzzin:** This is a very nice working sketch by Ben to start to get a handle on all the subtleties in the car.

Not a fancy sketch but very valuable and definitive in its aesthetic content. Notice here he suggests a different section to the body side than the original and also a different approach to the shape of the front end and grill. We stayed with his original proposal in both cases as we were seeking a smooth and simple, elegant shape for the overall body with all the required graphics to be integrated. We sought a timeless design that would be relevant for many years.



▲ **Ruzzin:** This is the full-size rendering that Ben made from his original design sketch. I think this was the first one that he ever made, we helped a little and he was very excited about what was happening; that he was really designing a car after all the years of schooling at Art Center. All of us in the studio had fun watching and helping him, being careful not to get in the way of his freedom of expression. Of course he did not know that we were doing that. Our management was very excited about this proposal and we started to get the clay model ready to begin, before he even finished the rendering. Dave Holls, our Design Director, only asked for one change, which was a more vertical profile for the front end to try to connect this dramatic new shape to the current Caprice.



▲ **Ruzzin:** Ben made this drawing over his rendering and then put the profile of the existing Caprice behind it with a fine white line. You can see how much higher the front was on the original car and the top of the windshield, also the top of the back-lite. This was a very nice design program as we were able to clearly define a design theme at the beginning that was very well liked by our management at Design. Chevrolet management was also enthused and their engineers really supported us, trying in every way to make the cost and manufacturing challenges work. It is important to get the design theme established early in a program in a very professional manner as that allows time for everyone to work on execution and refinement. Once management approves the design kick-off a strong concept will continue improving, building more support by everyone involved. From the beginning the design improved, became more dramatic and complete looking. It is imperative that the studio work very hard at this point to ward off criticism that shows weakness in the design. It either has the aesthetic value and strength or not. If it does not progress with strength then, likely, the designers would be asked to look at another solution. If the design theme cannot be found early then the valuable execution time is diminished as the release date is fixed and only under extreme cases would it be changed and moved back.



▲ **Ruzzin:** At this point in time, we used every possible device to verify the correctness of our design approach to our management and to Chevrolet. This is a blueprint of the previous drawing cut out and taped on to the current car. Notice that we cut a slot in the paper so that the side view mirror could poke through. This was a simple but amazing device because as you walked around the car you could see the new design at the same time as the old. It was a kind of surreal vision of both cars. This also helped reinforce and validate the design direction which was very strong. Don't forget this was sometime in the 1980s, over twenty five years ago; there were no round big cars and the entire industry was in a downsizing mode. So when we started this design, it was a real shock to a lot of people. To protect the design direction we made the car look as small as possible, even though it was the same size as the previous model.



▲ **Ruzzin:** This is the clay model being shown in our secure Design Patio. The paper wheel designs are from our previous Lumina Sedan model. You can see everything here, door cuts, all the lamps, the front volume, the more vertical grill change from the rendering was a good move. Here even without shiny surfaces the car looks very complete, very light and fleet. The A-Pillar looks a little wavy, those are the kind of things we would see outside and correct after we went back to the studio.

This may have been the show where we requested an outside viewing for the studio alone, just for our own opportunity to see the car and work on it. Of course, the people that move the cars had to schedule it as others also used the facility. Our management found out; no one ever went out there without them taking a look, so it was very unusual. However, they understood and did not interfere. I think this was the first time that this had happened.

The grille is a paper mock-up with the integrated Caprice emblem, not important at this stage of the program as we are focusing on the overall design shape and volume of the car.

Also at this time, aerodynamic models were being developed and studied.



▲ **Ruzzin:** The 3/4 rear view from the same show. A lot more wavy lines and adjustments to be made. The light can be tricky on matte finish clay surfaces so some may look flat or too round under these lighting conditions.



▲ **Ruzzin:** This is a nice shot of the new and current cars, for comparison. The grille is not finished in the bumper, both have the same emblem. As this model was developed, we included engineering criteria like the #10 sweep required for the cowl, under the windshield. The car is starting to look very good here, not finished but on the way.

Woowee, look at those tail lights! Sort of a nod to full-size Chevys of yore. Apparently, the idea didn't work out so well though.



▲ **Ruzzin:** The taillights look good here but are problematic. The three lamps want to look the same size, like the current car, but the one on the outside looks smaller; unless you view it from the corner, then it looks too big. An unhappy situation but we eventually succeeded.



▲ **Ruzzin:** The two cars in side view on a gray winter day in Michigan. Nothing much to be said here, the achievement is obvious.

These elegant beauties would look quite at home on a top-of-the-line model.



▲ **Ruzzin:** This shot was taken in the studio. The final tail lamps are starting to emerge and we are experimenting with the graphics, like the license plate. The bottom deck lid cut (opening) would become the driver here to organize everything in the rear of the car. Through all the development of these kinds of challenges we are attempting to keep the original design character, to be consistent with the final design.



▲ **Ruzzin:** This is the clay model with the bumper protection strips and protective body side molding.

These wheels were designed in our ongoing effort to kill the wire wheel cover. Chevrolet was willing to eliminate the fake wire wheel if we could come up with a substitute design that they liked. The sales people never thought that we could do that but we did. This cast wheel was very successful.

I did another one later in Cadillac that was also very successful and, when tested by the wheel engineers at the GM Proving Ground, was declared the lightest and strongest wheel ever tested by GM.



▲ **Ruzzin:** This is the clay model with the bumper protection strips and protective body side molding.

Rear view of the clay model; everything is getting organized here and it all looks very good.



▲ **Ruzzin:** The clay model was cast in plaster and a fiberglass model was made, and then finished for final Chevrolet and Corporate Management reviews. This was all done in our building at enormous cost.

Here we see the finished design that was done in a metallic wine color. The car looks great in this view and is very close to Ben Salvador's original design proposal. He had a lot of good help but his idea of what the car should be was strongly captured in his original rendering. The design was very clear and timely, allowing the Studio to carry it forward to completion with very little interference or changes by management. It was a good design for everyone and we were able to move it forward quickly.

The method here was to keep turning the problems that were encountered, concerning cost and manufacturing, back to the original design character as intended. This meant that all the studio designers, Leif Chapman, my assistant Dave Macintosh, previously Ralph Amprim and I all used our design skill and experience to realize Bens original design direction, giving up our own intentions.



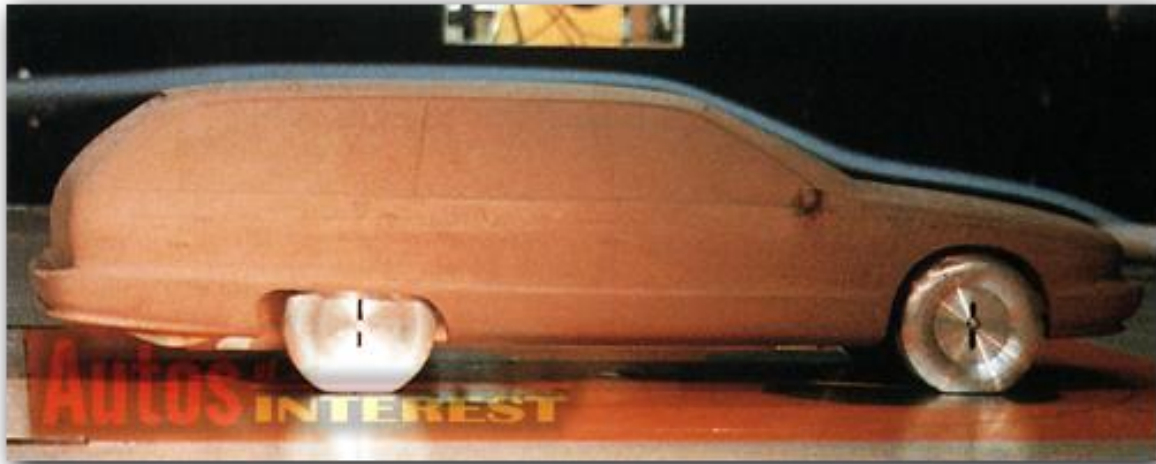
▲ **Ruzzin:** In this rear view, we can see the final organization of all the rear components.



▲ **Ruzzin:** We wanted the small paint strips between the grill and headlamps so that the front would be different than the Lumina Sedan.



▲ **Ruzzin:** The running car. Small changes are still being made to the final design for release to Engineering, caused by cost or manufacturing requirements.



▲ **Ruzzin:** This could be the scale model in the wind tunnel. The smoke at the front was started too high. But you can see that by the time it gets to the windshield, it is nicely attached with a little bump past the top of the windshield and then attached very well to the end of the car. Very good.



▲ **Ruzzin:** The full-size station wagon model that was also done in Chevrolet #2 Studio. We had to roll the plan view of the rear glass in toward the center of the car for aero. The car had so much space that utility was not much of a problem. The difficulty here was that we had to design the entire rear to work with the fourteen-year old rear hinge geometry, as they were included in the platform architecture.

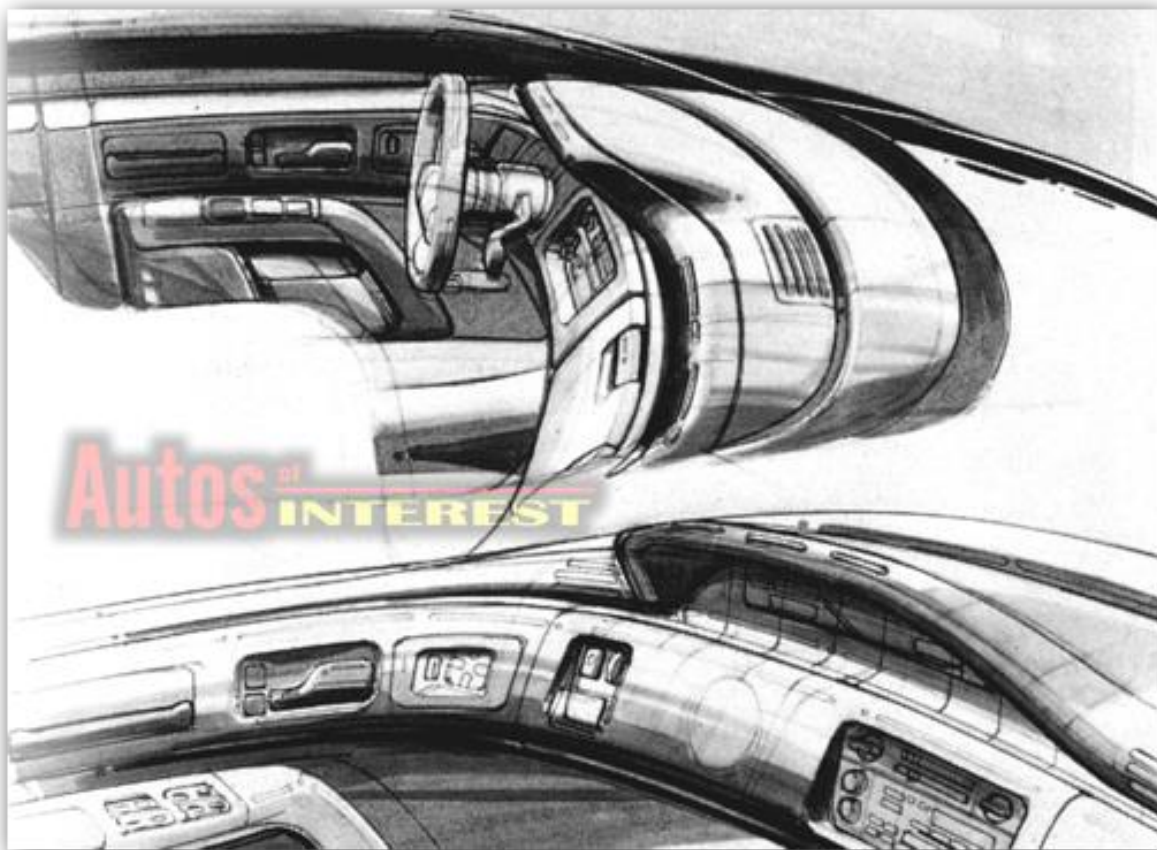


▲ **Ruzzin:** The new and old wagons. Not much to say here again, don't forget this was over 25 years ago. There were several tail lamp design possibilities considered; the final one, not shown here, was the best.

Even though interiors wasn't his forte, I also sent Ruzzin a few pre-production shots of work on the cabin.



▲ **Ruzzin:** A simple wrap around instrumental panel shown here, very much in character with the exterior design. Blaine Jenkins was the Chief Designer in the Chevrolet Interior Design Studio.



▲ **Ruzzin:** These are working sketches made to develop the theme of the instrument panel and doors. Soft shapes that follow the exterior design. Many of these would be made before the final direction was chosen to be modeled in clay.



▲ **Ruzzin:** Here is the panel in clay. It is getting finalized with all the required ergonomics and other details. Storage was a big priority; there was a lot of space in the car. The interior studio designers would often have us in to look at what they were doing and to give them our thoughts. We had a good relationship with them and tried to finalize exterior design information that was critical to them early so that they could make the most of their design time. Things like the mirror patch and final door belt line were very important to their work.

After I'd received all of this information we arranged a phone conversation. What was intended as a brief follow-up turned into a fascinating discussion that was at least as educational as our initial exchange. Since this part was conducted verbally, there is a more casual tone to the discourse.



Additional discussions: on-Caprice-topic (mostly)

This first portion primarily relates to our subject car, the 1991 Caprice.

Autos of Interest: Ford and Chevy have historically challenged each other with arch rival models. How much did Ford's products, namely the Crown Victoria, influence the 1991 Caprice?

Ruzzin: Not much. Sales management and management were always apprised of all the competition—including Ford, of course—but we didn't pay any attention to them, at all. On the other hand, they did pay attention to us.

Funny, I was told by one of the Ford designers that they'd modeled a Seville at Ford Design. I asked him, "Well, did you guys like it?" He said, "No. Nobody liked it." That was really interesting because it showed the difference in the design cultures of the two design houses, how different they were. How we could do this car that, after a lot of hard work, we loved and the public loved, yet they didn't like it.

It made you see that their culture was to produce something totally different based on their knowledge, history and understanding of what was required. So, when they saw this thing that we had done, they didn't like it at all. I found that really interesting.

Autos of Interest: This was quite a busy time at Chevrolet, wasn't it?

Ruzzin: Yeah and we were the studio that did anything that had a quarter of a million volume. When we were told that we were going to do the Caprice, it was kind of a shocker because the studio next door had that responsibility. But the reason they gave it to us was we were doing the most dramatic new designs in the building. It was pretty much understood by everyone the things we were doing—in succession, like three or four in succession—at that time. We were definitely on a role and that's why they brought it to us.

Autos of Interest: Would you say there was any animosity harbored by the other studio for not having received the assignment?

Ruzzin: No, I don't think so. Nothing was ever said or shown in that regard.

Autos of Interest: You discussed previously that a coupe was not produced due to waning demand. So, apart from the sedan and wagon, other body styles were never conceptualized or even discussed?

Ruzzin: No. The thing about Caprice was the Corporation saw a sales opportunity when the whole big car era was trailing down. You get to the point that it's not worth investing in a bunch of

big cars when within three or four years the demand is gone and then you have all this volume left. But they saw an opportunity in Chevrolet.

A profitable program was to sell 300,000 cars per year and Chevrolet was convinced that they could do it. They figured some of those sales would come from big car buyers from Buick, Oldsmobile, Pontiac and Cadillac but then they got into it with Buick and Oldsmobile, and Chevrolet's sales position was diminished.

Autos of Interest: In the fiberglass model photos, there appear to be minor variations in some of the shots. Was there more than one fiberglass model produced?

Ruzzin: No. Fiberglass models are like a copy. It's usually after you release the design that you make a fiberglass model.

About the confusion in the pictures [in reference to an email discussion], one of the models we were looking at, a really nice three-quarter front picture, I think that car was really the running car that was built. We had our fiberglass model and then there was this other car that was built by Chevrolet, the running model. I think that picture—that series of pictures—really were of the running car.

That car was built before the design was finally released, maybe three months ahead, so there were some minor changes made. For example, the outside mirror we had on what we'd call the "patch," they wanted to put it on the body. Then, later, they brought it back up on the patch. But there was only one fiberglass model.

Autos of Interest: When you say "running model" or "running car," do you mean it was built for engineering tests?

Ruzzin: No, it was a demonstration vehicle and it was easily achievable. That's because the new design was done over an existing platform, with existing door hinges, tailgate hinges and all that. So, they could get to this running car pretty easily; as compared to an all new vehicle that would need to have everything manufactured.

Autos of Interest: Would those "existing hinges" be examples of hard points that are often referred to?

Ruzzin: Yes, the hinges are attached to the pillars or what we would call the "pillar inners," the part you see. In this case, we had the running gear, the insides of the doors—we did change the glass belt-line but there was a lot that was either carry-over as actual parts or parts from engineering that were very close. Each person within their responsibility would make a judgment as to how much they could keep.

Autos of Interest: Were there any styling metrics or goals established, such as hood height reduction?

Ruzzin: No, we didn't have a goal like that. We just put it where we wanted.

The aerodynamic drag on the old car was something like 0.485; the new car ended up at 0.325. (The Coefficient of Drag multiplied by the Area, in front view, is the true aerodynamic performance value; the CDA.) With a slightly smaller frontal area the resultant improvement in fuel economy was dramatic.

On the rendering it was actually lower and Dave asked us to raise it. The Caprice had a dead-vertical front end and Dave said, "Give it a little more volume so that we can get it to look like a complete Caprice replacement." We did that and it really was a good thing to do to the car.



Autos of Interest: Some modern vehicles have outside mirrors attached above the belt line, just behind the base of the A-pillar (i.e., the patch); others are mounted on the body, below the beltline. Is this a matter of styling preference or do other factors dictate the location?

Ruzzin: We would like to put the mirrors on the patch, usually, but a lot of it depends on the location of the driver, in relation to the mirror. Ultimately, you have to fulfill the Federal requirements for rear vision through the mirror.

We would usually want to locate a mirror on the patch because it keeps the body design cleaner. Sometimes you can't do that, though, depending on the angle of the A-pillar and you have to bring it back. The Corvette is a good example of that. What happens is, to meet the Federal requirements, you have to provide a certain field of vision, and as the mirror goes further forward, it has to get bigger to meet the requirement. Kind of like a cone, the further away something moves the bigger it has to be to be seen.

For the Caprice, we wanted it on the patch—we released it on the patch. Later, they brought it back and had put it on the body. I don't know why that is. They may have retained the old mirror pad and just redid the base of the post that the mirror sits on. There could be a number of reasons why it was done.

Autos of Interest: In your commentary on the photos you mentioned a “kill the wire wheel” campaign. That effort succeeded, bringing about the newly designed cast aluminum wheel for the upscale Caprice Classic model. Could you expand on that?

Ruzzin: The wheel that's in that photo was actually the Caprice's original design. Sometimes, when everybody is busy, and something needs to get done, the person with the least going on will get to do it. So, I was there one Saturday and I just laid the wheel out.

The design actually goes back to the Chaparral wheel that was done for the Chaparral race cars; it had been done in our basement by Larry Shinoda. Bill Mitchell came in one day while Larry was designing wheels for this Chaparral race car and said, “Just make it look like a wire wheel. Never mind all that other stuff.” So, Larry did this wheel that looked like a wire wheel. It was three-dimensional, the spokes were deep, yet it was a two-dimensional wire-looking wheel. The design was copied all over the world, including by big companies like BBS.

It's very interesting though. I didn't think much about it at the time but I'd laid it out for Caprice like a front-wheel-drive wheel, with the face way out. That actually helped the car look a little newer, you know, rather than a deeper rim.

So, later I left Chevrolet to work for Cadillac and there, holding course, were wire wheels. And, you know, the wire wheel companies were just cranking them out like there was no tomorrow. Well, that started the whole thing over again and I did another wheel. But this Cadillac was a front-wheel-drive car, so the face was also out.

When Dave Holls saw it, he said, “You can’t do that. That’s the wheel on the Caprice.” I told him the story and said, “Dave, we have to do something.” He said, “Okay, let me think about it.” So what he did was, he went to Chevy and he told the guys that they had to push the face of the wheel in and have some rim. That was his justification for letting us both follow the same direction. So, it did kill the wire wheel at Cadillac also.

Autos of Interest: Is there a reason that fake wire wheels hadn’t been challenged up to that point?

Ruzzin: Yeah, we tried to get rid of it on the Celebrity. With the Eurosport we had the stamped steel or aluminum wheels. But on the Caprice, which was a more traditional market, they were selling a lot of them.

The wire wheel companies even visited me in our lobby, trying to talk me out of this. They’d heard that we were pushing to get rid of them and that’s what their companies had, that’s what they made—wire wheels. They should have been more on top of what was going on in the world because you could see it was going to go away. We could see it.

It really started one day when I was driving somewhere and pulled up to a light and there was one of those fake wire wheels, laying on the road that a thousand cars had run over. I was going to jump out of the car and grab it but there were cars behind me and the light changed so I left it. I regretted it, even when remembering this stuff to write down for you, I regretted not doing that because I would have brought it in and put it on the wall in my office.

Autos of Interest: How symbolic a piece it would have made for the death of the wire wheel.

Ruzzin: Yeah, you know, a fake wire wheel undermines everything about what your car is all about. This fake thing on it. There was a time and a place for them, I guess, but, by that time, we were beyond that. It was time to get rid of it.

Autos of Interest: Generally speaking, was there ever any talk of reintroducing a true wire wheel?

Ruzzin: No because, compared to steel wheels, wire wheels are very weak. You can’t have a wire wheel on a car with a lot of torque because the center hub will stretch the wires and you get all kinds of problems. So, no, there was never any—wire wheels on race cars went away in the forties, I think.



Autos of Interest: Back to Caprice. Its design for 1991 was a dramatic departure from the prior generation, all the while covering a substantial amount of carryover hardware. Did the new shapes create any hurdles or difficulties downstream in the process?

Ruzzin: No. Any problems anyone has from a manufacturing standpoint are handled during the design process, during the execution of the design.

And, actually, quite to the opposite. The rounder, softer car was easier to do than the previous car because it had so much plan view, you know, the shape when looking down on it. And then there’s crown you have to put in the doors, in both directions, to meet the manufacturing requirements; and I think we had more than they needed. They were delighted because it meant they could really focus on execution and getting the surfaces really good, really the way we wanted it. No, there was no problem at all with any of that.

Autos of Interest: Did the direction you were taking Caprice have an influence on any of the other work at GM?

Ruzzin: In some ways. Later when I was at Cadillac, there was a show car done, a sedan. The full-size model was done by Jerry Brockstein, he was a great guy that did a lot of neat things for GM Design. Jerry did that scale model and it became the full-size show car. My personal feeling, when I looked at it, was that it had a lot of the character of the overall shape of the Caprice.

I think the fact that it was successful and it looked great, and when something like that happens, there's a big change, people look towards it as a new direction. It certainly was not an unusual direction that we'd discovered all on our own; it was kind of the culture and what was what was going on at GM Design. It just so happened that we had a window of opportunity to use that new culture to create a new design. I'm sure there was any number of other people that would have gone that direction as well, not just our studio, me or Ben.

Here's an interesting story. One time, when Roger Smith was the President, we had to show the Seville and the Eldorado to the Board of Directors. It was the first time that had happened in the design stage before we released them. They'd come because it was so important to the Corporation whether Cadillac moved from a negative to a positive asset. Apparently, before they walked in somebody said, "Dick Ruzzin is here, he's the one that worked on the Caprice." Roger came in and was looking around, then he said to me about the Caprice, "You know, I could give that to anyone I want." And I asked, "What do you mean?" He said, "I can make a Cadillac out of this, if I want." I thought that was kind of a funny thing to say.



Autos of Interest: Despite its amazing metamorphosis, there was no show car to herald the 1991 Caprice. Is there a reason for that or, maybe better put, are there criteria that warrant a show car?

Ruzzin: Well, there are no set criteria. Although, if Mercedes does a coupe show car, you can bet that the next year, Audi and BMW will have coupe show cars. In some cases, it shows where a company is going. In other cases it's just done as an exercise to learn how to do something and, maybe, advance the design or engineering culture.

But there are no set criteria or reasons for doing them. It's done based on the times and reasons that are at hand because it is expensive; it's costly and uses man power. Sometimes what's needed just isn't available.

Autos of Interest: For the actual design work, were you given a dollar amount, man hours or other budgetary metric to work within?

Ruzzin: No. Sometimes when you got to the end of a program you did but our costs were so small compared to the big picture it was almost meaningless.

Autos of Interest: Speaking of manpower, you've told me that the full-size renderings shown in some of the pictures are mounted on large panels that can be raised and lowered, right?

Ruzzin: Yes, they're stored up in the wall. The big full size drawing of the Caprice was on a vertical board that had counter weights and you could lift it right up, totally, into the wall. There were two more behind it. And then there was another wall. We would use those boards and walls for all kinds of displays, to work on engineering drawings and all kinds of things like that.

Autos of Interest: Did you do the work right on the boards?

Ruzzin: Yes. You could raise it up to work on it. If you're working on the wheels, you could raise the board up and then lower it. You're using the moving board as a tool to do your work.

Autos of Interest: What ended up happening to those drawings, once you were all done with them?

Ruzzin: They'd get taken down and were rolled up, and then... who knows.

Autos of Interest: Yikes! To someone like me, it's unthinkable that those might not have been saved or preserved somewhere. They're practically like the originals of our country's Founding documents! We both laughed... but I was dead serious.

Additional discussions: off-Caprice-topic (mostly)

So long as I had him in interview mode, I shot out some more questions that only someone with his experience in the industry could answer. Some are questions that have lingered in my head for many years.

Autos of Interest: Hearing terms like "Chevrolet Studio" or "Studio 2," it's rather unclear what the references are. Was there a "Studio 1" and "Studio 2," and were they distinct entities?

Ruzzin: There were actually three Chevrolet studios, plus a truck studio. Chevrolet had a huge volume of product, they still do. Chevrolet 1, which was next door to us, did the Caprice, Cavalier—I think they did that because we were doing the Caprice—Monte Carlo and there was another car they did in there.

We, in Chevrolet 2, did the Japanese cars that GM had signed up to meet the fuel economy standards, and the Celebrity, Lumina sedan and APV, and Caprice. We also did a Chevette replacement; a big program that was cancelled after it was released. We were doing a lot of stuff. Chevrolet 3 did the Camaro, Corvette and Beretta. Remember the little Beretta? They did that in there. So, there were three of our studios and there was the truck studio.

Autos of Interest: It sounds as though the various studios had distinct personalities. Were they run uniquely?

Ruzzin: We did that was really interesting. My head sculptor was a really smart guy, a math genius and artist. One day he said to me, "You know, we should run this place like a hospital." I asked him, "What do you mean?" He said, "Well, some hospitals are teaching-hospitals. People come in and move around with the doctors and learn how to work in a hospital. We could do that too. The people we have would be doing jobs beyond their classification and learning those jobs." They'd not just do a job as a creative sculptor but would be doing work like an assistant sculptor; maybe running the whole aero model themselves, putting it all together and making sure everything is accurate. So we started doing that and, boy, within a few months word got around

that the guys working in my studio were getting to do things that they never got to do in other places.

We eventually talked to Ray Hildebrandt, the Chief Sculptor, in and we explained how we ran everything as a teaching operation. For instance, if we were doing a sedan but had to do a two-door on one side, this person would run the job of the two-door doing things they would never get to do based on their job description.

It was very, very successful and I employed that at Cadillac Studio 2, when I got there. Ray came in and helped me. Within about a year, we had the best people in the building.

Autos of Interest: It seems the practice would have multiple benefits, including discovering talent that would have otherwise been locked away.

Ruzzin: That's right. Offer them the challenge and never forced them. We'd give them the opportunity and they'd jump at it; then go down at lunch and tell the guys, "Hey, I'm running the aero model!" And they'd ask how.

Autos of Interest: Was that ever adopted on a wider scale?

Ruzzin: Oh, I don't know. I doubt it. The bottom line was that a lot more people got a lot more job satisfaction out of their work in the time they spent there.

Autos of Interest: As well, better product can be expected of someone who enjoys their work.

Ruzzin: Sure. We not only did that with the designers but the engineers also. When I was at Cadillac, we had to do the Fleetwood and we didn't have the people to do it. So, it was a relatively simple job in terms of creating the car. The design was there, it was just a matter of matching the new production criteria and then changing some of the design. So, we put it in the hands of three people. We had a young woman that was an Engineer, a young man that was the Chief Sculptor, and we had one of the engineers. We said, "Okay, it's your car. Anything you need we'll get it for you." Every once in a while, they'd come to us and we'd help them out. It worked out just great and those three people, they grew so much in that time. It took them about a year to do that project but they grew so much.

Autos of Interest: Only about three people worked on that Fleetwood?

Ruzzin: Yeah. We were so busy that they'd done a design in the Advanced Studio and made a fiberglass model. That had to happen because of the timing of the program we discussed earlier. It was the only way they could get it; to have somebody else do it. They did it, we helped them. We watched what they were doing, gave them suggestions and then they developed the design. They had other people who helped them. We brought people in but they ran it, it was their responsibility and I think they had a lot of fun doing it.

Autos of Interest: As odd as it sounds, GM vehicles have historically been distinguishable. Apart from particularly modern trademark styling cues, where does this intrinsic identity come from?

Ruzzin: Since GM Design started as a product development entity, before anybody else, their professional level of quality was improving through the years and they got further ahead. So, what you see as a "GM feel" was a level of design quality and execution. It really was nothing more than that. It was how we did things based on history, the heritage of GM Design, what would be approved, and what was thought to be good enough. The special character is one of quality of execution, based on the longevity of the organization; also, the staff being very professional.

Harley Earl tried to hire professional staff every chance he had—our sculptors had degrees in fine arts, Ford's and Chrysler's did not. By the 1960s, it was very rare for a designer to be hired that did not have a degree. Then, you had people with multiple degrees, in architecture and design or computer engineering. As time went on, people became more educated and GM was a leader in that sense.

But the design staffs around the world like Mercedes, BMW and Renault had started in-house design groups after World War II, having seen GM and Ford. By the time you get to the 1980s,

they had been at it for around 30 years. So, essentially, they caught up and the tools everyone used—computers now—were pretty much available to everyone. The thing that differentiates the various staffs is their culture and the quality of the people that they are able to attract.

Autos of Interest: You had mentioned before that you'd like to discuss the broader history of automotive design. I'm all ears.

Ruzzin: Sure, I'll describe a little bit of it. It really goes back to Harley Earl who invented the design process that's really used all over the world, even still. I discovered a really interesting thing about him. You know he was an enormous influence on the industry. He was hired by Alfred Sloan, who had noticed that a lot of special bodied cars were being done on existing platforms, such as Lincolns, Cadillacs and Packards, or whatever. People in Hollywood would pay to have a special body made. That was called the Hollywood design influence.

Usually, a coachbuilder would buy platforms which would come with the engine and radiator and all the rest. They would do a body around that. Well, Harley Earl was involved with that and that's how he got noticed; he was brought to Detroit to do a couple of cars and see what would happen. What they didn't know about Harley Earl—I just found this out about a year ago—is that his dad was a carpenter who worked for movie studios. He worked for Cecil B. DeMille's studio.

Harley Earl's dad was apparently a good carpenter and developed a business there in the studio. He did hundreds and hundreds of wagons that were used in all the cowboy movies that were done before the war, when they were very popular. Well, DeMille built a new house and had Harley Earl's dad do some carpentry work inside the house. Incidentally, Harley had been developing his carpenter skills so his dad brought him to help. In the meantime, he met DeMille. Later, Harley Earl's dad bought a house not that far away from DeMille, who was an enormous figure in the movie industry. He was innovative and powerful, having built studios and created a movie lot that had everything in it that they could possibly need. They had carpenters, people for designing and making costumes. They'd make stuff out of plaster and metal, everything that they needed.

So, Harley comes to Detroit and is working for Alfred Sloan, reporting directly to him. They did some cars and then hired him. They gave him the responsibility of the color section, to define colors for all the programs and all the cars—they'd found there was a cost reduction if they used the same paint and colors in all the different models that were created by the different divisions. He wasn't given the responsibility to design cars, he had to earn that. The general managers of the divisions at that time, the presidents I suppose they were called, you know, they were guys that ran their own thing.

They were staying up late, drinking, playing cards, smoking cigars and they didn't want some kid coming along telling them how their cars should look. Well, gradually, he worked his way in and was doing more and more, and then somebody came up with the idea of sharing components. That was the huge economic break-through. And Harley had gotten involved with that.

He was part of the creation of the GM Tech Center and had a lot to do with the show cars. A lot of the success of General Motors in the '40s and '50s was the result of Harley Earl. So you wonder, where did this guy get this big vision that he had? Well, he got it from Cecil B. DeMille and the idea of having a car design center that had everything in it that you'd possibly need was taken from the movie industry.

So, Harley, experiencing these big ideas, this big vision, comes to Detroit and he's in a position to utilize his knowledge and his intelligence. And he does. Consequently he became like a god at General Motors until he left. It comes from the fact that, as a young guy, he experienced people that did big things and when he left there, he went and did big things in Detroit. The result, by the time he left, was the biggest design organization in the world with a great culture, and great organization and management. It was a huge success that evolved, and that studio system that I worked with was evolved from Harley Earl's process from a management structure. That comes back to that question you had on what kind of autonomy we had.

We had unprecedented autonomy as long as we produced something valid and of value. And, you know, management would just let you go. We didn't have a lot of people, it was a very small group but we could do a lot in a hurry. That's how it worked, I think, throughout the building. The designers that had real capability and didn't need much help at all didn't get much. Others maybe didn't have some of the background knowledge or experience, they would get more help.

Autos of Interest: It appears, particularly in the last ten or so years, that strong design talent has not been afraid of—or even gravitated to—underdog manufacturers. Kia would be an example. Is there merit to that observation?

Ruzzin: Yeah. Through the years, really back in the 1950s, GM Design essentially staffed all the design houses in the United States, and some people even went to Europe. People were graduating under GM and going to work at other places. Now, people leave from time to time—but from all the major companies—and will be attracted to and go to companies like Kia. Since they have all the tools available to them, those people can make a big difference. The company also is in the mood to catch up and to distinguish themselves, so they will give the designers maybe more money to spend on the product, or do things that others would not do relative to the interior package. Consequently, they'll have some pretty good success. If they have some experience, some heritage and they get some advantage from the company in doing the products, then they are able to make a difference.

Autos of Interest: Johan de Nysschen was recently appointed President over Cadillac. Even more recently, it was announced that the brand is moving its headquarters from Detroit to New York. Following that, was the announcement of the brand's new codified naming convention. What are your thoughts on Cadillac's unfolding strategy?

Ruzzin: Well, the designers will still be here. The management, especially sales management, and probably some of the people that have a lot to do with defining the content of the products will be in New York.

The environment you work in has an impact on what you're doing. That's why groups were sent to California to do Group California Design and some were sent to Europe to work for a short period of time—I did that myself. There is no doubt that that has an impact in what you do in your job. That's part of the culture and it works.

In terms of what Cadillac is doing, the product is good. They just don't know how to sell them. They don't know how to sell these superior products. Because, you know, they are unbelievable values when you compare them to Mercedes, Audi and BMW. You know, Cadillac owned the production sedan speed records on the Nürburgring, in Germany? [Set in 2008 with a CTS V and since bested only by the Porsche Panamera.]

They have a lot of attributes that are really admirable but, apparently, they've come to the conclusion that the sales staff doesn't know how to sell these things in the volumes that they should. So, I'm sure they will learn a lot by being there because New York, of course, is a big fashion design center for products of all kinds. Environment makes a difference.

They've also got the revised logo. Without the wreath they can make it larger. It's much cleaner now, like a piece of contemporary sculpture, very subtle. Like what Chevy did with the bowtie—when you see the bowtie, you're looking at it from the bottom. So, you're looking up at Chevrolet. I think that's just brilliant and Cadillac has done that to theirs also.

Cadillac is also coming out with a new big car and the ATS Coupe just came out. I've seen the Coupe in person and you'll notice them a quarter-mile away. They look really good. It's going to represent Cadillac very, very well and it's putting them at the leading edge of a new coupe revolution. Coupes are cyclical, demand goes up and down. Now they're at the bottom and Cadillac has arrived with a coupe.

While it is a "look at me" design, the bottom line is they're going to be selling the ATS against Audi, Mercedes and BMW coupes, so they have to be on the same playing field. They can't have a car that is so unusual or so dramatic that everyone may love it except the people considering buying. They have to bring a kind of refinement to the character of the car and that's what Cadillac has done.

Autos of Interest: A stark contrast to the mold-breaking second-generation CTS coupe, wouldn't you say?

Ruzzin: Yeah, what a great product. That and the wagon are so outstanding when you see them on the road. Even though they probably didn't sell as many as they'd hoped, they made an image for Cadillac. Those cars will be collectibles within 15 years, if they're not already. There are people who want something very neat, very special to keep for ten years and they're going to buy those cars. The residual impact of doing those cars is going a long way for Cadillac.

Autos of Interest: It was reported recently that Cadillac's efforts in Europe aren't planned to be bolstered anytime soon. It would seem that the lack of right-hand-drive offerings could be a significant impediment to going mainstream in that region. Are you aware of any reasons why Cadillac doesn't make the accommodation?

Ruzzin: It's a matter of investment. They could make right hand drive cars if they wanted, that's not a problem. All the safety regulations that they have to meet are from here. There are very few that you have to meet to sell in Europe when you're doing a car. They are American regulations and the European companies meet our regulations. There are a few—German regulations and Swedish ones—but they're very, very simple, regarding the overall picture.

I don't know what their production capability is relative to their sales volume but there's no use trying to sell in Europe if you're not going to have enough cars to send there. Also, I think the big market opportunity in the world is China. So, Europe is probably—I'm only speculating here—it's probably a market viewed as, "yeah, it would be nice to sell some cars there and it would be nice to be known there," but all the real intellectual effort and volume effort, in figuring out how to do that, has to be in China.

Cadillac is already well thought of China and now, they're even building cars [for the Chinese market] there. They are making a tremendous effort there and doing well.

This last short section shares a few more snippets by Ruzzin, including a closing.

On the Caprice variants:

Ruzzin: There was a lot of enthusiasm for the Caprice design within Design and the Corporation. This led to a four door sedan for Buick and Cadillac and a wagon for Oldsmobile. The platform was shared as well as the door lowers, the windshield and A-pillar as well as many interior components. When the Caprice was released for production digital data was sent to the studios involved and they started their versions. By that time I was assigned to Cadillac Studio, across the main hall from Chevrolet #2 where the Caprice was designed.

The Caprice was scheduled from the beginning to be a Chevrolet only with a 300,000 unit sales target which they were very confident in making. When prototype Caprices were about to be driven at the Proving Grounds we in the studio were asked to provide a disguise package that would hide the car well with special emphasis on the roof. My Assistant, Dave Macintosh, took cardboard and paper and created a boxy roof on our release model. When Dave Hollis came in he was astounded and asked what it was for. I told him and he said, "My God it is a Buick!"

He immediately went down to Buick Studio where the general manager was making a visit. He brought him back and that was it. Soon a Buick, then a Cadillac and finally an Oldsmobile were in the pipeline for production. Chevrolet then had trouble selling their 300,000 cars, as they were counting on customers from the other divisions who were big car buyers.

On the Cadillac Fleetwood:

Ruzzin: When the Caprice design was 98% completed I was transferred to Cadillac Studio to do the new line of cars. A large rear drive car was included, a variation of the Caprice. The theme model for the Caprice based Fleetwood was done in one of the Advance Studios from early Caprice information, a fiberglass model was made and included in corporate reviews. We were very busy during that time designing a new Seville and Eldorado to be introduced in 1992.

Cadillac Studios task was to take that design and productionize it with the final release engineering information from the Caprice and release it for production.

The car turned out very well. The only design negative was the padded top design that appears on all cars. The upper rear corner of the rear door could not be changed and that meant a square corner on the padded top that I felt was not up to the rest of the car.

The original model had a lot of wedge and we settled it down at the rear. The use of Chrome seemed excessive at first but actually worked very well over time.

The limousine model shown actually was a 1/3rd see-through scale model that was made for us at Engineering Staff. We also modeled the unique areas full-size so that we could approve them for highlights and engineering criteria.

On the Buick Roadmaster:

Ruzzin: The Buick was designed in Buick Studio by Wayne Kady, who had also worked earlier in Cadillac Studio. It was a very successful design.

On the Oldsmobile Custom Cruiser wagon:

Ruzzin: Oldsmobile wanted the Caprice platform to create a Vista Wagon version, a model that they were very well known for on other cars. They only wanted the wagon.

On the fourth-generation Caprice's legacy:

Ruzzin: During its early production life the Caprice was very well received but was soon criticized for its narrow rear tread. The press had discovered the wide tread look of foreign cars and of course gave no credit to the fact that the new design was done on a fourteen year old platform. To improve the design when it was being done we proposed the wider tread station wagon rear suspension but it was too expensive for the sedan and offered little improvement for luggage capacity since it had so much already.

Chevrolet decided to widen the tread and open the rear wheel opening which did not help the car in my opinion. They felt that they had to do something, so an SS model was also made. This idea was initiated by the observance of a black wagon with large special wheels that was spotted by one of the designers on his way to work one morning. It was owned by a dentist, he was persuaded to bring it in for display and, since larger wheels and tires would help any car, it received a lot of attention that resulted in the SS model.

Closing remarks:

Autos of Interest: I'd like to thank you for again taking the time to share backstage information so few were privy to, yet, about an industry and products that have affected so many of us. It not only educates but clears up decades old questions and misconceptions. Do you have any closing remarks?

Ruzzin: I appreciate that. You know, we all have predetermined ideas on how things got to be where they are. So, sometimes it's hard to hear that the way we thought something was, isn't. It's a natural thing and we all have to watch for that.

For me, when I do these sort of things, I realize that there is this sense of history and I want to make sure that I give the story as it happened. Certainly the best that I recall. It's good for me too, to go through all those pictures that you sent and I remembered things that I wouldn't have thought of ever again.

I mean, when we first saw that running car, it just blew us away. Here was this incredible car and the engineers were so excited about it. They'd brought it over and we had given them the information months before and had totally forgot about it. All of it brought memories back to me. There was one picture I noticed and was trying to remember just where we were on the Caprice, in relation to the Lumina sedan and minivan, and the Celebrity. Because there's a picture on the wall from a point in time when we were working on so many cars and had finished so many projects, in such a short period of time, that we couldn't have them all in the room. Engineers would come over and say, "What about this parking light?" or whatever. So, we got some pictures and we had them on the wall and you can see some of them in that one shot that shows the Lumina with Celebrity Eurosport show car in front of it. That picture helped me peg that the Caprice didn't come after all of those; I was trying to recall the order and it helped me remember.

Many thanks to Dick Ruzzin. Without his input such a comprehensive Design Notes would not have been possible. Also, a tremendous thanks to General Motors for their photographic contributions.

Discussion (18) ▾

Comments RSS

1. **solidsilver**

November 18, 2014 at 5:07 pm | # | Reply

Very ambitious entry. I always thought the car looked like a beached whale, but the story behind its development is fascinating.

- **Mike Rosa**

November 19, 2014 at 5:48 am | Reply

The only thing that never sat well with me were the outside mirrors. Jutting from the door panel on those posts they interfered with the motion of the design. Also, the narrow rear track was well concealed but I think the stance would have looked better, had they gotten the wagon's suspension. Thanks for commenting. It's good to hear other opinions.

- **Brick B-Body**

December 3, 2014 at 4:14 am | Reply

I've driven many of the B-Bodies of this generation and find the 1991-1994 side mirrors to be severely undersized. The 1995-1996 mirrors have a larger glass area for better viewing. To my eyes, the later mirrors flow much better with the overall styling and makes good use of the otherwise wasted space of the black plastic triangle filler piece.

The wagon rear end is very much different from the sedan unit in more ways than just width. Other than the center pumpkin (and associated 8.5" ring gear guts), they are wagon-specific parts. The wagon uses larger outer bearings, thicker axle shafts, unique axle flanges and backing plates compared to the sedan. The spring perches and lower control arm mounts are mounted wider on the wagon unit as well.

Along with the wider wagon axle, the rear half of the frame and floor pan is different from the sedan. This wagon-specific wider axle, wider frame and wider floorpan is what allows the 1977-1996 wagons to have 48" between the rear wheel wells in the cargo area (think hauling sheets of plywood).

Even the back skins of the wagon are different from the sedan. About halfway back, a closer look will show how the door sheet metal flares wide to accommodate the wider hips of the wagons. The front doors are common to all the B-Body sedans and wagons of this generation, also the 1993-1996 D-Body Fleetwoods.

2. **solidsilver**

November 19, 2014 at 7:33 am | # | Reply

Thanks for your response. The car just always looked bloated and ungainly to me, as if it might tip over when turning a corner. It never occurred to me until I read your post, but I believe Ruzzin's remark about the car being taller than it needed to be has something to do with it.

The Buick Roadmaster, which I believe also came out in 1991 or thereabouts, has better proportions and looks more contained, but I think the Cadillac Fleetwood Brougham was – is – by far the best looking of the three. It manages to register as impressive and substantial overall, without looking excessive.

- **Brick B-Body**

December 3, 2014 at 4:17 am | Reply

The Caprice sedan & wagon were introduced as 1991 models. The Buick Roadmaster wagon and Oldsmobile Custom Cruiser were also introduced as 1991s. The Roadmaster sedan came out as a 1992 model, followed by the D-Body Cadillac Fleetwood sedan in 1993.

3. 98 REGENCY

November 19, 2014 at 6:41 pm | # | Reply

I really liked this entry a lot. I learned a lot and I see what Mr. Ruzzin was speaking about in our conversation in another article. I was see why the design came about what they were trying to do. I personally was pulling for Oldsmobile and was shocked they only wanted the wagon(The Custom Cruiser). I had heard a rumor they wanted to make a Ninety Eight off this platform like Fleetwood. I guess that was not true.

I liked the Fleetwood out of all three(The Chevrolet Caprice and Buick Roadmaster and Cadillac Fleetwood). I wondered why they all had vinyl tops too. It was shocked to learn he did not like the facelift given to Caprice in 1993 and the Impala SS that came later. I thought the interior was improved in 1994-1996 though. The Caprice had some good merits too. The two things I did not like on the Caprice were the headlight design and the six window design. They tried to improve it in 1994. They still have that similar window design theme on the current Impala too. I did admire his comments about KIA. It is true. They got some great people in there and they did something nice looking like the K900.

You have to respect the team that did the Caprice because that was a lot of work for a dying segment and still work with the parameters they were given. I do miss large cars like that. I know that is too big for today's market. I like the length of my two cars- 200 and 205 inches respectively. I wonder what Mr. Ruzzin thinks about the Holden Caprice? We get it here for police/ fleet duty from Holden.

I also still see the cars on the road. I know they have car shows across the country for the wagons. I see the videos on You Tube all the time. I wished the Oldsmobile version would have had more parts that were Oldsmobile specific. It was quite obvious the instrumentation panel was shared with Buick and the rest was Chevrolet Caprice except the seats.

Thank you Mr. Ruzzin for sharing your experience and story. Thank you Mike for your excellent work.

4. Etchebarry

November 22, 2014 at 6:11 am | # | Reply

A great post about the chevy caprice. It was one of my preferred gm's cars with its covered back wheels. For me, these car was penalized by its technology being back from 1977 chevy caprice (in comparison with the more modern ford crown victoria) and not on its design. A more modern v8 engine, a platform with four independent suspensions and a room interior with some better materials should have changed its faith. The second ben Salvador's sketch seems more dynamic than the full-size rendering with a trunk more high like on some european cars and an upward lateral line. I hope you 'll talk us about chevette's replacement program. Thank you to Mr Ruzzin for his testimony which shed new light on the caprice's history.

5. DICK RUZZIN

November 22, 2014 at 2:55 pm | # | Reply

Etchbarry,

The Caprice came out twenty-three years ago and was designed over twenty-six years ago.

Do not forget that the real car, unlike the sketch, honored all Federal and GM requirements for safety and vision. Also the trends spoken about for deck height came much later. The deck is as high as possible within the engineering requirements. It is easy to speculate about better interior trim but remember that all cars are created to sell for a price. The sketch does what it is supposed to do... push the vision beyond what is possible.

As quality of materials improve as a result of customer demand all products respond to remain relevant, but the price for all cars goes up..

All those comments are valid but consider the expectations at the time for the price.

DICK RUZZIN

- **Etchebarry**

November 23, 2014 at 6:12 am | Reply

It wasn't a bad comment for the caprice. I meant Chevrolet should have set materials closer to those of Crown Victoria in the same price's level. On other hand, I think that the Caprice's styling was more imaginative than Ford Crown Victoria which melt the aerodynamism and a retro styling with covered rear wheels

(while you're right, wire wheels were deprecated). For me, the narrow rear tread was well adapted with these aero age in 1990's. One time, I've read in a book that Chevy Caprice was like a modern interpretation of the Hudson step-down and it's a compliment. For the technology, I always think that a V8 engine like a not so much sophisticated version of the Northstar's Cadillac should have to give a good hope for these car.

Thanks to your comments! The web is a stunning space of communication! I didn't think I will talk with one of some legendary GM's stylists about the one model's styling!

6. **DICK RUZZIN**

November 22, 2014 at 3:15 pm | # | Reply

Etchbarry,

I just looked at the sketch again and if you do you will see that the rear deck on the real car is much higher than the sketch and the first rendering. We started moving it up on the clay model right away for design, aerodynamic and trunk capacity reasons.

DICK RUZZIN

7. **Markus W**

November 23, 2014 at 12:11 am | # | Reply

I have a question for Dick Ruzzin- what did you (and Ben Salvatore for that matter) think of the tweaks made to the Caprice styling in the '93 and '95 model years? First opening up the rear wheel wells, then adding a dogleg to the bottom of the C pillar. Personally I thought both improved the look of the car measurably but I'm curious what the designers thought.

8. **DICK RUZZIN**

November 24, 2014 at 12:14 pm | # | Reply

MARKUS W

You did not mention the wider bigger whilst and bigger tires that went along with the other two changes. The dogleg helps the SS version with the bigger wheels and tires but the regular car without those changes does not look good to me. We tried doing that when the car was being designed and everyone decided against it. It destroyed the continuity of the design and made the car look much more ordinary. I do not think it helped the design other than to change it so it looked a little different than when it came out. Sales people like that as they can sell a "fresh" look.

DICK RUZZIN

9. **Mike Rosa**

November 25, 2014 at 7:53 am | # | Reply

Thanks Mr. Ruzzin for your time and interaction, and thank you to those that have taken the opportunity to ask him questions. There is a lot to learn from these discussions!

10. **Flybrian**

November 25, 2014 at 6:10 pm | # | Reply

Unrealtd – As the owner of one, I would love to see a Design Notes regarding the Olds Aurora, another really forward-looking car. Some of the preceding design studies seems obscure without much info (Tube Car, etc) along with conflicting info about what the original 'long term' plan was regarding Aurora's place within Oldsmobile and GM as a whole. Just sayin' 😊 Love the work though!

- **Mike Rosa**

November 25, 2014 at 7:26 pm | Reply

Thanks Flybrian! A while back I had asked reader/commenter JohnnyD to pick a GM subject for a Design Notes (as thanks for his many contributions). He asked for the Aurora.

I worked with GM who searched multiple departments, including Design, and were unable to locate historical records at the time. I say "at the time" because some of their hard copy records have not been converted digitally. So, the Aurora Design Notes was dead before it started. My relationship with my contacts there has remained strong and you can bet that I will be following up on that one in the future. 😊

(As a side note, JohnnyD sent a few backup choices, the second of which was the 1940 Oldsmobile. GM Design was actually able to supply me with photos for that! It is listed in the category tree or can be found by searching.)

11. Brick B-Body

December 3, 2014 at 3:52 am | # | Reply

This is an article I've waited a long time to see. Thank you to both Mike Rosa and Dick Ruzzin for making this a reality.

The photo comparisons with the '80s Caprices used for reference seems to place all of this in the mid-1980s, say 1985/1986 time frame. Is this about right?

The greenhouse and skirted rear wheel opening of the 1991 Caprice has a strong resemblance to the 1988 Cadillac Voyage concept car. Was this by coincidence or was the same staffed used for both projects?

Also, the styling of the headlight, hood and fenders looks very similar to the 1992 Olds 88 and 98. Was there some cross pollination of styling themes or wind tunnel data?

In some of the photos, newer versions of the Caprice emblem can be seen. By chance, are there any sketches or photos of these concepts? I personally think it was a crime for the Caprice-specific emblem not to be continued on the 1991-up cars. Was this strictly a cost issue or a directive to more prominently display the Chevrolet bowtie on the Caprice?

- **Mike Rosa**

December 3, 2014 at 5:39 pm | Reply

You're welcome Brick, glad you enjoyed it. Especially considering you're such a B-body aficionado!

12. DICK RUZZIN

December 4, 2014 at 8:54 pm | # | Reply

Brick,

Your time frame is right.

If there was any influence the Caprice would have influenced the Voyage as it was done first. I always thought it did but I never said anything as there was no point. I was in Cadillac Studio and an advance design studio had the assignment, a good friend and very good designer, Jerry Brockstein was the designer. Same with the Olds, because the Caprice was first it became an internal design trend.

Regarding the emblem, I really do not remember but we did evolve the emblems if we felt we should, in this case as you point out the Chevrolet emblem became more prominent. We would work with our graphics designers and Chevrolet marketing on the emblems and lettering and then get approval from Chevrolet management.

In one case on the Celebrity I proposed eliminating the brushed metal look on the Chevrolet block lettering. It had to be approved first by the other two Chevrolet studios then we presented it to Chevrolet who approved it. They would have been crazy not to, I was told the overall savings was over a million dollars.

Dick Ruzzin